DATA–DRIVEN DECISION MAKING TOOLKIT

Conducting a School Data Inventory

What Data Do We Have and Need?

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PURPOSE AND OBJECTIVES

Many schools do not know what types of data they have, the data format, or who has the data. The data inventory is an important step in knowing what types of data should be considered for use in decision making and school improvement planning, as well as which are available and ready for analysis. The School Data Inventory tool provided in this document lists data sources that are helpful for making some of the basic decisions to optimize school functioning and planning. The purpose of the activity that accompanies the tool is to introduce strategies and tools for conducting an inventory to determine what data in the school and district are readily available, somewhat available, and not available. Participants will:

» understand why and how schools or districts should conduct a data inventory;

» determine the types of data and methods for collecting a variety of data; and

» conduct a data inventory.

ACTIVITY DIRECTIONS

Materials

» **Handouts:** School Data Inventory, Types of Data (4 pages), Data Collection Methods for the Types of Data, Strategies for Focusing Your Data Inventory

» **Tool:** School Data Inventory

Time Required

60 minutes plus time to complete the inventory: The time can vary greatly depending on how much time facilitators or school or district teams take to discuss the questions, identify needed data, focus their inventory and/or actually complete their data inventory.

Directions for Facilitators

» (5 minutes) Distribute the handout "School Data Inventory." Review this handout as an introduction to the process and why it is important.

» (25 minutes) Hand out the 12-page School Data Inventory. Point out that the sections of the inventory are based on the types of data and that each type of data is made up of categories of data such as Student Enrollment, Attendance, and Behavior that are indicated in bold capital letters. A data category such as Behavior may involve several more specific kinds of data such as suspensions, expulsions, etc.

Mention that, at first glance, the amount of data in the inventory may seem over-whelming. *Stress the idea that it is not necessary or recommended for a school to complete*

this profile all at once! The main idea is to start with what's easily available. (Strategies for focusing the inventory are presented as part of this process!)

Pass out the handouts describing the four types of data. Present each type of data and go over the "Why collect _____ data?" reasons and the "What are some examples of _____ data?" Add other examples from your own experience and/or ask participants for additional examples.

» (5 minutes) Introduce the handout on Data Collection Methods by directing participants to the column and row header labels. Go over some examples by focusing on particular Types of Data such as Student Demographics and looking at the Data Collection Methods indicated by the X's. Ask participants to discuss briefly in groups or circle the X's of the types of data they have previously collected or used.

» (25 minutes) To guide the completion of the actual inventory, discuss the handout, "Strategies for Focusing Your Data Inventory" to determine what data the group will need to inventory.

   Present the first strategy about *readily available data,* then have facilitators or school teams look at the School Data Inventory tool and write a check to the left of the data they know they already have.

   Present the second strategy about *School Improvement Plan* data related to the goals, objectives, and strategies. Participants should make sure that these are checked in the School Data Inventory so the data will be collected. Note that participants may want to also think about data that will help them investigate root causes for their achievement.

   Present the third strategy about *school program evaluation* data needs. Have the school teams make a list of the federal, state, district, and/or school programs, and explain that they should determine what data they need for reporting and evaluation purposes. They should determine the data they will need about each program and check these data off in the School Data Inventory list.

   Finally, schools may have a *problem area* they want to investigate. Have school teams talk about whether they have a problem area in their school that needs investigation and identify potential data they may need.

» Once which data will be addressed has been determined, the participants can complete the inventory. Time will vary depending on the amount of data to be inventoried.

SOURCE

This activity, including the tool and handouts, was developed by WestEd. For further information about this tool or for other assistance in your school reform effort, contact WestEd staff through our school improvement Web site, SchoolsMovingUp, at schoolsmovingup@wested.org.

WestEd invites you to use this tool in your work for educational or research purposes, free of charge, provided that each copy includes a full citation of the source and copies are distributed free of charge beyond the cost of duplication.

For more tools, resources, and assistance with school improvement, please visit the SchoolsMovingUp Web site at http://wested.schoolsmovingup.net.

School Data Inventory

Knowing what data you have, where they are, who is in charge of them, what format they are in, and how ready they are for use is a major first step in the data-driven decision making process and school improvement planning.

The purpose of a School Data Inventory is to:

» Find out what data are readily available at the school and district office;

» Determine whether they are prepared and ready for use;

» Document this information for future reference;

» Identify the available data needed for current investigation and decision making;

» Identify other data needed that are not currently available; and

» Determine what data needed by the school can be generated and provided by the district office.

Who should conduct a School Data Inventory?

Both the district and the school should conduct the inventory to find out:

» What data in the inventory are available and not available at the district office?

» What data are available and not available at the school?

» What are the data needed by the school that the district could provide?

» Are there any data that are needed by the district and/or school that neither has?

Demographic Data

Why collect demographic data?

» To have up-to-date information about the students, school staff, and community;

» To monitor changes in the school and community;

» To provide a rich context for interpreting student achievement results; and

» To provide information for school improvement planning.

What are some examples of demographic data?

» **Students**
  - Gender
  - Race/ethnicity
  - Free/reduced lunch status
  - English Language Proficiency status
  - Mobility

» **School**
  - Enrollment, number of students
  - Attendance: absence, tardiness
  - Student behavior: suspensions, expulsions
  - Dropout rates
  - Graduation rates

» **Staff (Administrators, Teachers, Support Staff)**
  - Types of teaching certificates, authorizations
  - Years of experience
  - Education
  - Turnover rates

» **Parents/Community**
  - Family structure
  - Participation in conferences, school activities
  - Population and housing trends
  - Economic base

Student Achievement Data

Why collect student achievement data?

- ›› To determine if students are learning the content standards;
- ›› To use as a basis for accountability;
- ›› To find out if ALL students are learning and progressing;
- ›› To see how students compare nationally;
- ›› To inform curriculum development or revision;
- ›› To determine strategies for improving instruction;
- ›› To know which programs are increasing student achievement; and
- ›› To provide information for school improvement planning.

What are some examples of student achievement data?

- ›› **Types of Student Achievement Assessments**
  - – Norm-referenced achievement tests
  - – National assessments (e.g., SAT, ACT, NAEP)
  - – State standards-based, criterion-referenced assessments
  - – District assessments
  - – Classroom assessments including student work

- ›› **Types of Assessment Formats**
  - – Paper/Pencil tests (e.g., multiple-choice, short answer)
  - – Performance assessments (e.g., writing essays, giving a speech, conducting experiments, reading out loud)

- ›› **Types of Student Achievement Scores**
  - – Raw scores
  - – Percentile rank scores
  - – Normal Curve Equivalent (NCE) scores
  - – Percent of proficient students
  - – Scale scores

- ›› **Levels of Score Aggregation**
  - – Scores for the entire school or grade
  - – Scores disaggregated by student demographic characteristics (e.g., gender, race/ethnicity, English language learner status, mobility status, economic status)

Curriculum, Instruction, and Program Data

Why collect curriculum, instruction and program data?

>> To know which students participate in the various programs;
>> To determine which curriculum objectives are taught (i.e., indicators of students' opportunities to learn);
>> To determine if a program is being implemented as it should be; and
>> To determine how a school instructional strategy (e.g., block scheduling, year-round school schedule) is implemented.

What are some examples of these data?

>> **Curriculum and Instruction Data**
> – Teacher use of the curriculum for instructional planning
> – Student records/checklists of curriculum content objectives
> – Teachers' long-term/yearly plans for sequencing and teaching the curriculum objectives
> – Teachers' lesson plans with instructional objectives correlated with the curriculum objectives
> – Alignment of the instructional materials to the curriculum standards and objectives
> – Alignment of the classroom assessments to the curriculum standards and objectives

>> **Program Data**
> – Goals/objectives, requirements of program implementation
> – Student selection criteria
> – Program participants: students, staff, parents/community, etc.

Perception Data

Why collect perception data?

›› To understand how various people in the education community view a particular school, program, event, etc.

›› To understand the beliefs and assumptions that underlie education-related actions or non-actions.

What are some examples of perception data?

›› **Whose perceptions?**
  – School staff
  – Students
  – Parents/Community

›› **Types of Perceptions**
  – Views about particular people, events, or situations (can be neither positive nor negative)
  – Judgments often based on attitudes, beliefs, and/or values

›› **Targets of Perceptions**
  – School climate (e.g., safety, feeling of belonging)
  – Academic expectations for students (e.g., in the school, by teachers, by students, by parents/community)
  – Subject areas (e.g., attitude to learning or teaching mathematics)
  – Programs and/or innovations
  – Tests, results, data use
  – School leadership, professional climate
  – Professional development
  – School/parent relationships
  – School/community relations

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Data Collection Methods for the Types of Data

TYPES OF DATA	DATA COLLECTION METHODS				
	Records, Database, Documents	Test Results	Observations, Checklists	Surveys	Interviews/ Focus Groups
DEMOGRAPHICS					
» Students	X	X	X	X	X
» School	X		X	X	X
» Staff, Teachers	X			X	X
» Parents/ Community	X				
STUDENT ACHIEVEMENT	X	X	X		
CURRICULUM, INSTRUCTION, & PROGRAM	X	X	X	X	X
PERCEPTIONS					
» Students				X	X
» Staff				X	X
» Parents/ Community				X	X

Strategies for Focusing Your Data Inventory

The following are some suggestions for determining what data will be MOST relevant and useful to collect. You may identify these data from one or more of the strategies below.

❑ 1. **Determine what data are readily available.** Identify data that you already have or are easy to collect.

❑ 2. **Identify the data needed to address your School Improvement Plan goals, objectives, and strategies.** Achievement and demographic data are often the most needed for monitoring and evaluating school goals, however, other types of data are equally important in investigating root causes that need to be addressed in the school improvement process. These data should become the heart of your school data profile.

❑ 3. **If you want to evaluate the effectiveness of a program, pose key questions that must be answered to determine the data needed.** Program evaluations often require a host of data about the participants, program, and outcomes, for example:
   » program goals and objectives, purpose, and rationale;
   » participant selection criteria;
   » implementation plans and timelines and implementation data;
   » program participants and relevant demographic information; and
   » outcome data such as achievement scores, perceptions, and/or observations.

❑ 4. **If you have identified a problem area (e.g., increase in behavior problems, increased dropout rate), determine the specific data needed to investigate the problem.** Inquiry into a problem situation is one of the ways to focus a data inventory.

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